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Appl. No. 09/941,096
Response to Office Action Dated May 31, 2006
Response Dated: August 31, 2006

• • • R E M A R K S / A R G U M E N T S • • •

By the present Response to the Official Action dated May 31, 2006, each of the independent claims have been changed to recite that in the plurality of bulgy structural zones, each bulgy structural zone is "extending continuously in one direction in parallel and substantially uniformly spaced apart from the plurality of bulgy zones."

Each of the independent claims have been further amended to recite that the thermoplastic synthetic resin film is welded to the thermoplastic synthetic resin fibrous sheet at and along "the apex of" the bulgy structural zones.

This change to the claims is fully supported by the original specification.

Entry of the changes to the claims is respectfully requested.

Claims 1-19 are pending in this application.

In the Official Action of May 31, 2006 claims 1, 2, 4, 9-10, 11, 13 and 15 were rejected under 35 U.S.C. §102(b) as being anticipated by U.S. Patent No. 5,882,769 to McCormack et al.

In addition, claims 9-16, 18 and 19 were rejected under 35 U.S.C. §102(b) as being anticipated by U.S. Patent No. 5,939,1778 to Boich.

Further, claims 1-10 were rejected under 35 U.S.C. §103(a) as being unpatentable over McCormack et al. in view of U.S. Patent No. 5,244,716 to Thornton et al.

In addition, claims 1-8 and 17 were rejected under 35 U.S.C. §103(a) as being unpatentable over Boich in view of Thornton et al.

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The Examiner has relied upon McCormack as disclosing:

...a laminate of two or more layers. One of the layers may be elastic. One of the layers may comprise a thermoplastic film and one may comprise a nonwoven fabric. The thermoplastic film may be breathable. See col. 4, line 53 - col. 5, line 65. The two layers are bonded together so that a plurality of bulges form continuously across the surface of the laminate. The bonds may be lines which extend in parallel across the laminate. See fig. 1 and also col. 7, lines 1-3.

The Examiner has further stated as to McCormack that, "[w]ith regard to new claims 11, 13, and 15, the bulgy areas of McCormack have the claimed shape. See figures."

The Examiner has relied upon Boich as disclosing:

...a sheet comprising an imperforate elastomeric film having a plurality of bulgy regions which are bonded to a fibrous nonwoven layer at the apex of the bulgy regions. See figures 4 and 5 which show the elastomeric sheet 10 and the nonwoven sheet 12 wherein the sheet 10 is bonded to the nonwoven 12 at points 16. The regions of the sheet 12 between the bonding point 16 are substantially flat. See figure 4. When the sheet is under tension as shown in figure 4, the bulgy areas project from the sheet and have a flat back portion. When the sheet is not under tension as shown in figure 5, the bulgy areas comprise opposing curved portions extending away from each other. The bulgy areas are solid. See figures.

The Examiner has relied upon Thornton as disclosing:

... discontinuously bonded material comprising an imperforate, water vapor permeable, liquid impermeable file layer such as a polyurethane layer and a fabric. The two layers are discontinuously bonded so that the fabric layer will be flat which the film layer is pleated into a plurality of parallel pleats. See figure 3a where 105 refers to the film and 100 refers to the fabric. The parallel pleats correspond to the claimed structure of uniformly spaced bulgy zones. The film may comprise a polyurethane material and may have a WVTR which would meet the claimed limitations. See col. 13, lines 19-38.

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In combining the teachings of McCormack et al. and Thornton et al. the Examiner took the position that:

...it would have been obvious to have employed a polyurethane film having the claimed WVTR as taught by Thornton. One of ordinary skill in the art would have been motivated to employ the polyurethane because Thornton teaches that such films are suitable for use in laminates comprising breathable film layers and fabric layers wherein the breathable film layer is puckered or pleated.

In combining the teachings of Boich and Thornton et al. the Examiner took the position that:

Boich differs from the claimed invention because Boich does not disclose that the film is vapor permeable. Thornton discloses a discontinuously bonded material comprising an impermeate, water vapor permeable, liquid impermeable film layer such as a polyurethane layer and a fabric. The two layers are discontinuously bonded so that the fabric layer will be flat while the film layer is pleated into a plurality of parallel pleats. See figure 3a where 105 refers to the film and 100 refers to the fabric. The parallel pleats correspond to the claimed structure of uniformly spaced bulgy zones. The film may comprise a polyurethane material and may have a WVTR which would meet the claimed limitations. See col. 13, lines 19-38. It would have been obvious to one of skill in the art at the time the invention was made to have employed a polyurethane film having the claimed WVTR as taught by Thornton. One of ordinary skill in the art would have been motivated to employ the vapor permeable sheets of Thornton because Thornton teaches that such films are suitable for use in laminates comprising film layers and fabric layers in order to improve the comfort of users of articles comprising the laminate.

In numbered paragraph 6 in the Official Action of May 31, 2006, the Examiner stated:

Applicant argues that the claims require substantially flat zones between the bulgy structural zones and bonding between the film and the fibrous sheet at and along the bulgy zones. However, the claims do not require that the bonding be at the apex of the bulgy zones which is what applicant seems to be claiming. Bonding in McCormack is along and at the bulgy zones because it is adjacent to the bulgy zones and is at every bulgy zone. Therefore there is bonding at and along the bulgy zones. If Applicant intends to claim that the bonding is at the apex of the bulgy zones then that needs to be recited in the claims. Also, the bulgy zones in McCormack do have the flat zones between the bulgy zones as shown in the figures.

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In numbered paragraph 7 the Examiner maintained the rejections under the Boich reference by stating that "Applicant argues that the bulgy structures in Boich do not extend continuously and in parallel. However, looking at figure 5 the bulges are continuous and parallel. Also, Boich teaches applying the adhesive in a predetermined pattern."

The Examiner has pointed out in numbered paragraph 6 of the Official Action that, "[b]onding in McCormack is along and at the bulgy zones because it is adjacent to the bulgy zones and is at every bulgy zone. Therefore there is bonding at and along the bulgy zones. If Applicant intends to claim that the bonding is at the apex of the bulgy zones then that needs to be recited in the claims. Also, the bulgy zones in McCormack do have the flat zones between the bulgy zones as shown in the figures."

Applicant intends to claim that the bonding is at the apex of the bulgy zones. To more clearly explain Applicant's invention, Applicant has amended each of the independent claims to state that, "said thermoplastic synthetic resin film being welded to said thermoplastic synthetic resin fibrous sheet at and along the apex of said bulgy structural zones."

This language is believed to overcome the Examiner's understanding of "along" as including the areas adjacent to the bulgy zone.

Bonding of the bulgy zones at the apex is not disclosed in the McCormack reference and therefore the McCormack reference does not render the claims of Applicant's invention anticipated.

The Examiner has stated that "looking at figure 5 the bulges are continuous and parallel" in the Boich reference.

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Applicant respectfully disagrees. Figure 5 in the Boich reference “shows a section through the sheetlike structure according to Fig. 4, in a[n] [un]tensioned state.” [sic] Figures 4 and 5 are cross-sectional views of the horizontal projection views shown in Figures 2 of the sheet in an untensioned state in the Boich reference. Figure 2 only discloses connection sites 16 in a periodic pattern with no continuous bulgy zones. See Col. 4, line 66-Col. 5, line 5.

Figure 5 in the Boich reference therefore is merely a cross-sectional view of Figure 2, which does not disclose continuous bulgy zones and instead discloses only periodic connection sites 16.

The connection sites 16 in all figures of the Boich reference fail to meet the limitations of applicant’s independent claims that the bulgy structures “extend[ing] continuously in one direction in parallel and substantially uniformly spaced apart from one another.”

To more clearly explain Applicant’s invention, Applicant has amended each of the independent claims to state that, “each bulgy structural zone extending continuously in one direction in parallel and substantially uniformly spaced apart from the plurality of bulgy zones.”

This language is believed to overcome the Examiner’s understanding of “bulgy zone” as including points of adhesion such as the connection sites 16 in the Boich reference.

The Boich reference does not disclose bulgy zones that extend continuously in one direction and therefore the Boich reference does not render the claims of Applicant’s invention anticipated.

The Examiner has relied upon Thornton et al as teaching a polyurethane film having a specific WVTR.

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This further reliance upon Thornton et al. does not address or overcome the structural differences and distinctions between applicant's claimed invention and each of McCormack et al. and Boich as discussed above.

Accordingly, neither the combination of McCormack et al. and Thornton et al. nor the combination of Boich and Thornton et al. render applicant's claimed invention obvious under 35 U.S.C. §103.

Based upon the above distinctions between the prior art relied upon by the Examiner and the present invention, and the overall teachings of prior art, properly considered as a whole, it is respectfully submitted that the Examiner cannot rely upon the prior art as required under 35 U.S.C. §102 as anticipating applicant's claimed invention.

Moreover, it is submitted that the Examiner cannot properly rely upon the prior art under 35 U.S.C. §103 to establish a *prima facie* case of obviousness of applicants' claimed invention.

It is, therefore, submitted that any reliance upon prior art would be improper inasmuch as the prior art does not remotely anticipate, teach, suggest or render obvious the present invention.

It is submitted that the claims, as now amended, and the discussion contained herein clearly show that the claimed invention is novel and neither anticipated nor obvious over the teachings of the prior art and the outstanding rejections of the claims should hence be withdrawn.

Therefore, entry of the present Response to Official Action and reconsideration and withdrawal of the outstanding rejections of the claims and an allowance of the claims is earnestly solicited.

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It is believed that the above represents a complete response to the Official Action and reconsideration is requested.

If upon consideration of the above, the Examiner should feel that there remain outstanding issues in the present application that could be resolved; the Examiner is invited to contact applicant's patent counsel at the telephone number given below to discuss such issues.

To the extent necessary, a petition for an extension of time under 37 CFR §1.136 is hereby made. Please charge the fees due in connection with the filing of this paper, including extension of time fees, to Deposit Account No. 12-2136 and please credit any excess fees to such deposit account.

Respectfully submitted,



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